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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,085	05/09/2007	Valerie Frankard	4559-061539	7477
76809 7590 12/30/2009 Barbara E. Johnson, Esq. 555 Grant Street, Suite 323 Pittsburg, PA 15219				
EXAMINER BAUM, STUART F				
ART UNIT		PAPER NUMBER		
1638				
MAIL DATE		DELIVERY MODE		
12/30/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/580,085

Applicant(s)

FRANKARD ET AL.

Examiner

STUART F. BAUM

Art Unit

1638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2007.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 21-25 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☐ Claim(s) _____ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☒ Claim(s) 1-19 and 21-25 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/5508)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-2 and 3 (in part) drawn to a method for modifying the growth characteristics of a plant comprising modifying expression or level of a *seedy1* nucleic acid or modifying the activity of a *seedy1* protein in a plant, wherein modified expression or activity or level is effected by introducing a genetic modification into the locus of a *seedy1* gene, wherein said modification is effected by T-DNA activation or tilling or site-directed mutagenesis or homologous recombination.

Group II, claims 3 (in part), 4-18 and 25 drawn to a method for modifying the growth characteristics of a plant comprising modifying expression or level of a *seedy1* nucleic acid or modifying the activity of a *seedy1* protein in a plant, wherein modified expression or activity or level is effected by introducing and expressing a *seedy1* nucleic acid, wherein said nucleic acid is overexpressed thereby increasing expression of said encoded protein; or genetic construct comprising a *seedy1* nucleic acid encoding a *seedy1* protein; or an isolated *seedy1* nucleic acid.

If Applicants elect Group II, Applicants are to elect one nucleic acid sequence and one corresponding amino acid sequence from claim 25.

Group III, claims 3 (in part) and 4-11 drawn to a method for modifying the growth characteristics of a plant comprising modifying expression or level of a seedy1 nucleic acid or modifying the activity of a seedy1 protein in a plant, wherein modified expression or activity or level is effected by introducing and expressing a seedy1 nucleic acid, wherein said nucleic acid is expressed thereby decreasing or inhibiting expression of an endogenous seedy1 protein.

Group IV, claim 19, drawn to a method of using an isolated seedy1 nucleic acid or protein.

Group V, claims 21-24, drawn to an isolated seedy1 protein.

2. The inventions listed as Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the method for modifying the growth characteristics of a plant comprising modifying expression in a plant of a seedy1 nucleic acid is taught in the prior art. Applicants define a seedy1 nucleic acid or protein as being modified either directly or indirectly from any source provided that the nucleic acid when expressed in a plant gives modified plant growth characteristics. Based on this definition, Ko et al (2001, US patent number 6,239,332 B1) disclose a method for modulating the biomass of a plant comprising transforming a plant with a nucleic acid (claims 1-21). Based on applicants' definition of "seedy1 nucleic acid" as discussed above, the method of Ko et al teach applicants' method.

3. In addition, the claims are not linked by a single technical feature because they are each drawn to products and processes not shared by the other. The method for modifying the growth characteristics of a plant comprising modifying expression or level of a seedy1 nucleic acid or modifying the activity of a seedy1 protein in a plant, wherein modified expression or activity or

level is effected by introducing a genetic modification into the locus of a *seedy1* gene, wherein said modification is effected by T-DNA activation or tilling or site-directed mutagenesis or homologous recombination of Group I is not shared by the method for modifying the growth characteristics of a plant comprising modifying expression or level of a *seedy1* nucleic acid or modifying the activity of a *seedy1* protein in a plant, wherein modified expression or activity or level is effected by introducing and expressing a *seedy1* nucleic acid, wherein said nucleic acid is overexpressed thereby increasing expression of said encoded protein of Group II, which is not shared by the method for modifying the growth characteristics of a plant comprising modifying expression or level of a *seedy1* nucleic acid or modifying the activity of a *seedy1* protein in a plant, wherein modified expression or activity or level is effected by introducing and expressing a *seedy1* nucleic acid, wherein said nucleic acid is expressed thereby decreasing or inhibiting expression of an endogenous *seedy1* protein of Group III, which is not shared by the "method of using" a *seedy1* nucleic acid or protein of Group IV which is not shared by the isolated protein of Group V.

4. Each of Inventions I-V are capable of being separately made, independently used and the patentability of one does not render the others obvious or unpatentable.

5. Because these inventions are distinct for the reasons given above, have acquired a separate status in the art as shown by the literature and sequence searches required for each of the Inventions are not required for another of the Inventions, restriction for examination purposes as indicated is proper.
6. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).
7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stuart F. Baum whose telephone number is 571-272-0792. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on 571-272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1600.

/Stuart F. Baum/
Stuart F. Baum Ph.D.
Primary Examiner
Art Unit 1638
December 21, 2009